

I CLAIM:

1. A laminated modular water filter comprising:

5 an intermediate plate having a central hole formed therethrough, a top surface with an annular upper groove formed around said central hole in said intermediate plate, a bottom surface with an annular lower groove formed around said central hole, and a through hole formed through said intermediate plate, said upper and lower grooves in said intermediate plate being located between said central hole in said intermediate plate and said through hole in said intermediate plate;

10 a top plate connected removably to said intermediate plate and having a bottom surface that abuts against said top surface of said intermediate plate so as to establish a liquid-tight seal between outer peripheries of said top and intermediate plates and that is formed with an annular lower groove adjacent to said upper groove in said intermediate plate, a central hole that is formed through said top plate and that is aligned with and that is in fluid communication with said central hole in said intermediate plate, and a through hole that is formed through said top plate and that is in fluid communication with said through hole in said intermediate plate, said through hole in said top plate being adapted to permit introduction of dirty water therethrough;

25 a bottom plate connected removably to said

intermediate plate and having a top surface that abuts against said bottom surface of said intermediate plate in such a manner that a liquid-tight seal is established between an outer periphery of said bottom plate and said outer periphery of said intermediate plate and that is formed with an annular upper groove adjacent to said lower groove in said intermediate plate, a central hole that is formed through said bottom plate and that is in fluid communication with said central hole in said intermediate plate, and a through hole that is formed through said bottom plate and that is in fluid communication with said through hole in said intermediate plate, said through holes in said top, intermediate, and bottom plates constituting a through hole unit, said central holes in said top, intermediate, and bottom plates constituting a central hole unit, each adjacent pair of said upper and lower grooves in said top, intermediate, and bottom plates defining an annular filter-receiving chamber that is in fluid communication with said central hole unit and said through hole unit so as to permit flow of the dirty water from said through hole unit into said central hole unit through said filter-receiving chamber; and two filter units received respectively and fittingly within said filter-receiving chambers, each of said filter units including

a film unit including two adjacent parallel

filtering films that define a filtered water passage formed therebetween and that are adapted to prevent solid particles suspended within the dirty water from flowing into said filtered water passage through said filtering films, each of said filtering films having a central hole that is in fluid communication with said filtered water passage and said central holes in said top, intermediate, and bottom plates, and

two rotatable nets parallel to and rotatable relative to said filtering films, said film unit being disposed between said rotatable nets, each of said rotatable nets having a central hole that is in fluid communication with said central hole unit, and an inner side proximate to said film unit and formed with a plurality of projections.

2. The laminated modular water filter as claimed in Claim 1, wherein said projections of each of said rotatable nets of said filter units are arranged along a plurality of angularly equidistant curved lines, each of which extends from an inner periphery of a corresponding one of said rotatable nets to an outer periphery of the corresponding one of said rotatable nets.

3. A laminated modular water filter comprising:
a plurality of superposed intermediate plates arranged one above another in such a manner that a liquid-tight seal is established between outer peripheries of each adjacent pair of said intermediate

plates, each of said intermediate plates having a central hole formed therethrough, a top surface with an annular upper groove formed around said central hole in a corresponding one of said intermediate plates, a bottom surface with an annular lower groove formed around said central hole, and a through hole formed through the corresponding one of said intermediate plates, said upper and lower grooves in said intermediate plates being aligned with one another and being located between said central holes in said intermediate plates and said through holes in said intermediate plates;

a top plate connected removably to said intermediate plates and having a bottom surface that abuts against said top surface of an uppermost one of said intermediate plates so as to establish a liquid-tight seal between an outer periphery of said top plate and said outer periphery of said uppermost one of said intermediate plates and that is formed with an annular lower groove adjacent to said upper groove in said uppermost one of said intermediate plates, a central hole that is formed through said top plate and that is aligned with and that is in fluid communication with said central hole in said uppermost one of said intermediate plates, and a through hole that is formed through said top plate and that is in fluid communication with said through hole in said uppermost one of said intermediate plates;

a bottom plate connected removably to said intermediate plates and having a top surface that abuts against said bottom surface of a lowermost one of said intermediate plates in such a manner that a liquid-tight seal is established between an outer periphery of said bottom plate and said outer periphery of said lowermost one of said intermediate plates and that is formed with an annular upper groove adjacent to said lower groove in said lowermost one of said intermediate plates, a central hole that is formed through said bottom plate and that is in fluid communication with said central hole in said lowermost one of said intermediate plates, and a through hole that is formed through said bottom plate and that is in fluid communication with said through hole in said lowermost one of said intermediate plates, said through holes in said top, intermediate, and bottom plates constituting a through hole unit, said central holes in said top, intermediate, and bottom plates constituting a central hole unit, each adjacent pair of said upper and lower grooves in said top, intermediate, and bottom plates defining an annular filter-receiving chamber that is in fluid communication with said central hole unit and said through hole unit so as to permit flow of the dirty water from said through hole unit into said central hole unit through said filter-receiving chambers; and a plurality of filter units received respectively

and fittingly within said filter-receiving chambers,
each of said filter units including

a film unit including two adjacent parallel
filtering films that define a filtered water passage
formed therebetween and that are adapted to prevent
solid particles suspended within the dirty water from
flowing into said filtered water passage through said
filtering films, each of said filtering films having
a central hole that is in fluid communication with said
filtered water passage and said central holes in said
top, intermediate, and bottom plates, and

two rotatable nets parallel to and rotatable
relative to said filtering films, said film unit being
disposed between said rotatable nets, each of said
rotatable nets having a central hole that is in fluid
communication with said central hole unit, and an inner
side proximate to said film unit and formed with a
plurality of projections.

4. The laminated modular water filter as claimed in Claim
3, wherein said projections of each of said rotatable
nets of said filter units are arranged along a plurality
of angularly equidistant curved lines, each of which
extends from an inner periphery of a corresponding one
of said rotatable nets to an outer periphery of the
corresponding one of said rotatable nets.